



**Off-Grid Solar Lighting  
& Power Experts**

# ProCharge

## Solar Battery Energy Storage System

**T**he ProCharge 3-Phase Solar Battery Energy Storage System (BESS) – a cutting-edge solution for clean, quiet, and sustainable temporary power.

Perfectly engineered for construction, infrastructure, and utility projects, this compact, skid-mounted unit integrates the latest in solar and battery storage technology to deliver reliable power with minimal environmental impact.

### Benefits

- The ProCharge's solar array and inverter produce 3X the output power and 3.5X the battery storage of our single-phase system. As such, it is best suited to high-power applications above 20kVA and up to 45kVA, making it ideal for larger, more power-hungry sites and sectors.
- The 3-phase battery energy storage system enables work sites to scale up their sustainable power delivery depending upon their power requirements. It can connect up to the majority of existing diesel generators, up to 100kVA, to give more flexibility in fleet management. It also offers greater compatibility, as the majority of work sites in the UK are wired up with 3-phase distribution boards.
- Improves the performance of your Stage 5 generator and reduces breakdown risk from running at low loads.
- Monitor and control settings remotely via an integrated micro-controller and GPS, streamlining site operations and reducing downtime.
- Operates quietly, making it perfect for urban environments and night-time projects, minimising disruption in residential areas.
- Estimated annual savings reported on the Kier A417 'Missing Link Project' of £69,000 and 150,000 kgs of CO<sub>2</sub>e.
- **Total Cost of Ownership:** Savings over a 7-year period, equate to over **£400,000 per unit**, with cost neutrality achieved in under a year, compared to a diesel generator alone.

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### Features

- The only BESS unit with 12x integrated solar panels
- 12x hydraulically operated 440W solar panels with a total capacity of 5.28kW and actuator assistance to extend the panels out autonomously
- Lithium-ion battery modules giving 120 kWh total battery capacity
- 45 kVA inverter power, handling generator loads up to 100 kVA
- 3.5 hours charge time from empty (15% - 95% SOC)
- 10t yokes for hiab lifting
- Forklift pockets on the skid for quick transport
- Skid base holds all lifting equipment in stowed away compartment
- \*lifting assembly optional extra*
- Wide doors for easy access and maintenance
- Two sockets 3-phase, 125amp in/out
- Hardwire entry point for external generator instead of using sockets
- Integrated fuel tank sensor outputs to connect to external fuel bowsers to read the fuel capacity
- Monitor and control equipment effortlessly with a user panel, display screen, and remote access via gps and

microcontroller, optimising solar yield, battery performance, and site efficiency

- Unit can be connected to smart distribution board to turn off individual circuits when not in use *\*optional*
- Cowls on canopy to keep unit cool and prevent condensation helping reduce maintenance and improve performance
- Improved performance of stage 5 generators - reducing breakdown risk due to running at low loads

### Applications

- Large Site Compounds
- Electric Telehandlers
- Electric Vehicle Charging
- Battery-Powered ATVs
- Mini Diggers and Dumpers
- Scissor Lifts
- Water Pumps
- Silos



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